



## King's Research Portal

DOI:

[10.1002/wat2.1292](https://doi.org/10.1002/wat2.1292)

*Document Version*

Peer reviewed version

[Link to publication record in King's Research Portal](#)

*Citation for published version (APA):*

Rusca, M. (2018). Visualising urban inequalities: the ethics of videography and documentary filmmaking in water research. *Wiley Interdisciplinary Reviews - Water*, 5(4), [e1292]. <https://doi.org/10.1002/wat2.1292>

### **Citing this paper**

Please note that where the full-text provided on King's Research Portal is the Author Accepted Manuscript or Post-Print version this may differ from the final Published version. If citing, it is advised that you check and use the publisher's definitive version for pagination, volume/issue, and date of publication details. And where the final published version is provided on the Research Portal, if citing you are again advised to check the publisher's website for any subsequent corrections.

### **General rights**

Copyright and moral rights for the publications made accessible in the Research Portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognize and abide by the legal requirements associated with these rights.

- Users may download and print one copy of any publication from the Research Portal for the purpose of private study or research.
- You may not further distribute the material or use it for any profit-making activity or commercial gain
- You may freely distribute the URL identifying the publication in the Research Portal

### **Take down policy**

If you believe that this document breaches copyright please contact [librarypure@kcl.ac.uk](mailto:librarypure@kcl.ac.uk) providing details, and we will remove access to the work immediately and investigate your claim.

**Article Title: Visualising urban inequalities: the ethics of videography and documentary filmmaking in water research**

**Authors:**

**First author**

Maria Rusca\*, King's College London, [maria.rusca@kcl.ac.uk](mailto:maria.rusca@kcl.ac.uk), ORCID: [orcid.org/0000-0003-4513-3213](https://orcid.org/0000-0003-4513-3213)

**Abstract**

Visual methods are becoming increasingly popular in social sciences, but are still little explored when it comes to water related studies. Drawing on literature on visual methods and documentary filmmaking, this paper reflects on the role and potential of videography to capture and visualise inequalities in urban water supply and access. The paper is based on research undertaken over a period of 4 years, in which a mix of talk based and videographic methods were used to capture the production of uneven conditions of access to water in Lilongwe, Malawi and Maputo, Mozambique. It reflects on the important and unique ethical questions raised by video-based methods, including the data collection process, the type of knowledge that is produced, how it is mobilised, who has access to it and the relation between representation of social reality and the power of storytelling.

**1. Introduction: methodological innovations in water research**

In cities in the global South, access to safe drinking water continues to be a major challenge for most of the urban population. Although data indicate that approximately 2.6 billion people have attained access to improved drinking water since 1990 (UN, 2017), in some parts of the world such progress has been insufficient. In sub-Saharan Africa, urban growth has outpaced investment in water supply infrastructure and services and, over the past 15 years, coverage for piped water services has declined (JMP, 2015). Further, several studies have questioned the use of coverage as an indicator, suggesting that this conceals the diverse condition through which urban dwellers access water across urban spaces (Satterthwaite, 2016; Jaglin, 2008). Definitions focusing on coverage tend to oversimplify the role played by location of water supply facilities, quality of water accessed, continuity of the service provided and risks associated with everyday practices of fetching water (Smiley *et al.*, 2017; Rusca *et al.*, 2017a; Alda-Vidal *et al.*, 2017a).

Questioning the representativeness of these indicators, implies reflecting on the methodologies used to capture and represent urban water inequalities. Water science and engineering scholars have long developed methods and models for researching water quality contamination and distribution. Critical water studies and Urban Political Ecology (UPE) have mainly focused on drawing out the role of power and politics in determining infrastructural developments, water flows, and the production of uneven access in cities (Loftus, 2012; Bakker and Kooy, 2008; Swyngedouw, 2004, 1997). These studies have been

less attentive to methodological questions and have mostly relied on well-established social science methods to capture production of inequalities in urban environments. Recent studies, however, have addressed the relative lack of attention to methodological questions by proposing new approaches to capture inequalities in urban water supplies in the global South. Central to these methodological innovations is both contributing to theoretical debates on the production of uneven urban waterscapes and producing socio-politically relevant knowledge to work towards more water-just cities.

A first methodological innovation concerns a shift from the analysis of structural processes to everyday practices of accessing and distributing water in the city. As argued for urban geography more broadly, this line of inquiry and methodological approach attempts to develop context specific accounts of southern urban trajectories (Lawhon *et al.* 2013; Parnell and Robinson, 2012; Pieterse, 2011). It has proven effective in capturing a broader range of hydraulic relations underlying the production of uneven waterscapes (Alda-Vidal *et al.*, 2017a; Anand, 2017; Truelove, 2016; Zug and Graefe, 2014). In these analyses, water injustices and the underlying power relations are more tangible and open spaces for incremental change and transformation (McFarlane and Silver, 2017; Lawhon *et al.*, 2014).

Further, following decades of anthropologists' engagement with visual research, videography, participatory video and photo elicitation are becoming increasingly popular (Fantini, 2017; Rose, 2016; Pink, 2012; Pink, 2010; Garrett, 2010; Pink, 2008; Latham, 2003). In water research, spatial video (SV) has been used to explore the relationship between space, distance, body and access to water (Smiley *et al.*, 2017) and photo elicitation to promote ways of knowing based on seeing, "one of the main sensory experiences for knowing water" (Fantini, 2017: 1). A participatory video (PV) pointing out the lack or inadequate maintenance of water and sanitation infrastructures allowed teasing out the absence of the State in a marginalized neighbourhood in Buenos Aires, Argentina (Morales *et al.* 2014). PV has also been used to explore how people's experiences of inequalities in access to water and sanitation services in Accra, Ghana and Cape Town, South Africa affect their sense of self and of others (Tremblay and Harris, 2018). These methods are argued to produce knowledge that enhances impact and transformation: participants gain self-confidence and appreciation, which encourages them to verbalize and act upon their concerns (Tremblay and Harris, 2018). Except for "Facing the mountain" (2016), which explores how people cope with monsoon rains and floods across the Himalayan, little work has been done to capture and represent water related challenges through research documentaries.

Drawing on literature on visual methods and documentary filmmaking, this paper reflects on the potential of videography to capture and visualise inequalities in urban water supply and the related ethical concerns. The paper is based on research undertaken in UNHIDE (Uncovering Hidden dynamics in Slum Environments) and INHAbIT Cities (Investigating Natural, Historical and Institutional transformations in Cities)<sup>1</sup>. In these projects a mix of talk

---

<sup>1</sup> INHAbIT Cities is sponsored by the European Union's Horizon 2020 research and innovation programme under the Marie Skłodowska-Curie grant agreement No 656738 and is implemented by King's College London. UNHIDE is sponsored by the Dutch Ministry of Development Cooperation (DGIS) and is implemented under the memorandum of understanding between the University of Amsterdam and the UNESCO-IHE Institute for Water Education.

based and videographic methods were used to capture the production of uneven conditions of access to water in cities in Lilongwe, Malawi and Maputo, Mozambique. The promise of videography is discussed by reflecting on how it complements talk based methods, what additional data sets it can provide and how it can be mobilised in education, outreach and advocacy activities. The paper also reflects on important ethical questions raised by videographic methods, including issues related to the data collection process, the production of and access to knowledge, and the ethics of documentary as a medium.

In Lilongwe, the videography focused on the everyday practices of distributing and accessing water in areas that are served by water kiosks and suffer from high rates of water discontinuity. In Maputo, we investigated two forms of marginalisation. The first concerns customers of the water utility, living at the very end of the distribution network. These customers suffer the most from water shortages and are often supplied a few hours only at night. The second form of marginalisation concerns people living outside the area served by the water utility. These projects aim at understanding how unavailability of water shapes ordinary life of urban dwellers at the margins. In Lilongwe, the team included Bentry Nkhata, resident of Area 50 and Board member of the Water Users Associations (WUAs) managing the water kiosks, and Charles Mkula, development journalist and founder of Hyphen Media. The documentary *Lilongwe Water Works?*, completed in 2017 (Rusca, 2017c) is available open access on Vimeo. In Maputo I worked with Juliao Carlos Nhaguilunguana, founder of Slow Motion Audiovisual.Ei and cameraman at Soico Televisão, and Nathalie Richards, PhD candidate at King's College London. The documentary is in post-production.

## **2. The promise of videography and documentary filmmaking in water research**

### **2.1 Complementing talk-based methods to visualise inequalities in urban water supply**

Videography is the process of capturing moving images through video recording. In social sciences, it has gained prominence as a way to reduce the reliance on talk based information and, in turn, collect different sets of data (Garrett, 2010; Witmore, 2005). As a “multisensory ethnographic method”, it captures things that are overlooked in a text, such as gaze, body posture, gesture, tones, interactions, sound, and, thus, the context and culture in which a given phenomenon is embedded (Garrett, 2010: 1; Jewitt, 2012; Prosser, 1998). Similarly, it can effectively represent the interaction and motion of human beings with the surrounding natural and built environment (Thomsen, 2015). Videography is particularly useful in research on the everyday, as relying only on what participants *say* about their practices limits what is captured of their routines (Pink, 2012). Videography has much to offer to social scientists attempting to develop creative methodologies to capture what people *do* and the way urban experiences are produced by and produce social relations (Rose, 2016).

In Lilongwe, for instance, videography proved useful to explore everyday practices of distributing and accessing water at the kiosks. The multiple 10-15 minute sequences filmed at intervals of 10-15 minutes, captured the routines of the kiosk attendants collecting money from customers, regulating access, helping customers lift their buckets and keeping the water kiosks clean whilst carrying their children on their backs (see pictures 1-4). In *Lilongwe Water Works?* (Rusca, 2017c), these sequences visualize the strength required to undertake these tasks, and, more broadly, the physical fatigue of accessing and distributing water discussed elsewhere (Rusca *et al.*, 2017). Additionally, videography revealed the voices,

predominantly of women and children, the social relations and the temporal dimension of queueing for water at the kiosk. The long sequences in time-lapse provide an opportunity to observe them over time. Whilst this information would be otherwise overlooked, videography allows to repeatedly revisit the performance of the practice during the analysis of the data (Jewitt, 2012; Latham, 2003; Pink, 2008, 2010, 2012; Simpson, 2011).

Sequences filmed at the kiosk: customers and kiosk attendant

Source: Rusca, 2017c

In Maputo, the sequences filmed between 3 and 10 a.m., provide rich data on ordinary life during water shortages, when water is only available for a few hours at night. The camera captures the physical and psychological fatigue of Elsa, who wakes up at 3 am to turn on the tap and fill her water buckets. The images show her tired gaze, the slow body movements and the flow of water reduced to a trickle, indicating low pressure. Because the family only owns a few buckets, Elsa starts her household chores in the middle of the night and re-fills them constantly (if pressure allows). The physical fatigue is also visible from her body posture, when she carries the buckets or bends over the ground to wash the clothes (see pictures 5-6). Videography captures, at least in part, her concerns and fears and the ordinary risks to which she is exposed to access and use water at home. Risks and fears are visualised through images of the darkness, the narrow alleys, the heavy silence, and her worried gaze while explaining that her husband works at night and the neighbourhood is not safe. The feeling of fear augments when – very rarely – someone walks by in the dark, probably on their way to work. Images also show the proximity of the house to other houses and the street and transmit a sense of lack of privacy and safety. As the sun rises and the settlement comes to life, the contrast between the dangers of the night and the safer conditions of the day becomes evident and adds another element to conceptualisations of unequal water distribution in the city (see pictures 7-8). While filming these scenes, I was experiencing the same fear and sense of insecurity. It is, therefore, not only about what this method allows researchers to visualize, but also about what one experiences alongside the contributors: filming requires presence and, in a way, participation of the researcher.

Sequences filmed at Elsa's house during the night and the day

Source: (Rusca, in post-production)

## 2.2 Reducing power differential between researchers and participants

Videographic research is seen as a way to shift from extractive approaches, in which research is carried out on research subjects and results are produced and used by academics, to a model in which participants engage “in a process of collective self-inquiry to inform their own self-determined development” (Roberts and Lunch, 2015: 4). While talk based methods are designed to get information from the research subject through structured or unstructured interviews, in videography research participants take a more prominent role, by performing data through their practices and social interactions or through their voices, speaking style, gaze and body language.

This method is argued to reduce power differential between researchers and subjects of the

research (Gubrium & Harper, 2016; Jewitt, 2012). BAFTA<sup>2</sup>-winning documentary director Brian Hill has explored ways to enhance the role of his contributors by giving them a performative voice. In his documentary-musicals on underrepresented and marginalised people, contributors sing their stories. This approach embodies the idea of using performance to co-produce a project: “[the musical] is a really good way of engaging audiences, but also making people that you are filming become part of something else, making them have a role rather than being a documentary subject, making them a creative collaborator” (Hill, 2016). Hill’s reflection on documentary filmmaking suggests that more can be done to ‘balance’ the exchange between contributors/research subjects, filmmakers/researchers and audiences.

In research, this idea is perhaps best embodied by participatory video, in which participants co-produce knowledge by deciding which stories and experiences will be documented and made visible (Jewitt, 2012). In Lilongwe, Bentry was responsible of selecting the stories to be included in the project, whilst I was in charge of the camerawork and, together with Charles, of the interviews. Through this arrangement, we engaged in “a practice of looking ‘alongside’ rather than ‘at’ research subjects” (Kendon, 2003: 142).

There were, however, also challenges with this method: as a man and member of the WUA, for Bentry water distribution in low-income areas is mostly about the financial and administrative management of the water kiosks, the WUA members who deal with these tasks, the local chiefs that are (informally) responsible of land management and the staff of the formal water utility (Lilongwe Water Board) that supplies and owns the water kiosks. Despite the participatory approach, we were, therefore, representing a particular perspective of service provision. In one occasion, we were approached by the local chief who asked to be interviewed on the challenges faced by people living far away from the kiosk. Bentry explained that, given his status, we had an obligation to hear his perspective. We filmed in front of a kiosk, which - the chief explained - was the last one in that neighbourhood. and many women were forced to walk long distances to reach it. Looking through the camera I saw a somehow disturbing image: the chief on the foreground discussing water challenges and the women in the background were queueing for water. I then realized that we were overlooking the experiences of the over 800 women employed by WUAs to sell water at the kiosk and of those buying and carrying it home. In the second phase of the videography project I decided to focus on everyday practices of distribution and access at the kiosks. Surprisingly, I heard for the first time that water at the kiosk is supplied only at night, exposing women to several risks. The kiosk attendant Grace explained that *“selling water at night is difficult. Sometimes women come to my house and ask me to sell them water. We go there together but then they draw water and leave me there alone. I wait there until morning and think of my children that I left home alone. Anything can happen.”* (in Rusca, 2017c)

The filming process itself, therefore, became instrumental for formulating the research findings. First, it showed that while participatory video might reduce power differential between the researcher and the research subject, it doesn’t eliminate power dynamics from the research process. The community is not homogeneous and research subjects may or may not have the power to steer the data collection process and, in turn, to determine what stories and perspectives will be represented. Further, it revealed how the management of the Water Users Associations, despite being local and community based, is in some ways distant from

---

<sup>2</sup> British Academy of Film and Television Arts

the everyday challenges of water distribution and access at the kiosks. Last, looking through the camera is a way of seeing and understanding that is entirely different from interviewing and observing. As Salgado (2015) eloquently explains in relation to photography “[*before using the camera*] I saw the phenomena, I saw the movements. I saw everything in front of me, but I was parallel to it. With the camera, I was inside it. [...] Something was happening, I was photographing, I was part of it; I was living it from inside”.

### 2.3 The transformation potential of videography: outreach and education

Video is claimed to be a suitable instrument to trigger development and change (Roberts and Lunch, 2015; Jewitt, 2012; Shaw and Robertson 1997). It provides an efficient and engaging way to communicate with decision-makers and to disseminate research results to non-academic audiences. As the format is more approachable than an academic paper and the message is delivered by the communities and individuals whose development the research is concerned with, videography ensures a more democratic way of telling and circulating stories, and, in turn, of affecting political structures (Appadurai 2006). However, as suggested by Fantini (2017), articles that argue for the added value of this method rarely present empirical data on impact of visual methods in wider policy making circles.

Participants in Lilongwe and Maputo seemed convinced of the potential of videography. In informal conversations, many explained they were participating to send a message about their condition and trigger change. Elsa’s message, for instance, is for water utility to care for her as much as it does for richer customers. The members of the WUAs in Lilongwe directly addressed politicians to defend the independence of their Water Users Associations. These responses seemed to be particularly triggered by the videography, as participants’ answers in face-to-face interviews were less ‘political’. Paradoxically, however, the transformation potential and outreach was constrained by the strength of some of these messages. As I will discuss later, videography raised some contentious and sensitive issues which were not included to protect contributors.

A second area in which videography has a transformative potential is that of education. School and college students are among the largest consumers of digital information. Ensuring effective academic engagement also requires developing educational material “in touch with the knowledge networks they utilize” (Graybill: 2015). The documentary *Lilongwe Water Works?* (Rusca, 2017c) is effective in engaging students in discussions on gendered access to water supplies, uneven distribution of water and everyday risks and, more broadly, questions of water (in)justice. First, with the documentary the information students draw on for their analysis comes directly from the research subjects who perform their everyday practices, rather than being mediated by the lecturer. Watching the documentary is, therefore, a way to develop their own knowledge and to better understand and situate inequalities in access to water. This activity resonates with active learning approaches, which suggest that teachers should facilitate students’ learning process rather than transferring knowledge (Rusca *et al.*, 2012; Thomas and Milligan, 2004; Wright *et al.*, 1994). Second, as suggested in psychology research, empathy and compassion for others are more likely to be triggered through video and images (Castelán Cargile, 2016). The documentary seems to elicit an emotional response and to increase sensitivity to injustice for people suffering from water shortages in low-income areas in a way the face-to-face lecture does not. These emotions often animate class discussion. To illustrate, the stories of women exposed to violence to buy water at night

triggered an outraged response from several students. The documentary also encouraged people in the audience that experienced irregular and uneven water supplies to share their stories. Last, for some it made water challenges and the context of peri-urban areas more recognizable and ‘real’. While watching the first scene of the documentary - a woman washing a bucket of water - a student from Zimbabwe commented: “*this is Africa*”. Although we had already discussed the case of Lilongwe for one hour, it was only with the documentary that the case study became ‘real’. This anecdote illustrates how images, colours and voices can connect the audience to a context in a way a face-to-face lecture is rarely able to.

### **3. The unique and complex ethical challenges of videography and documentary filmmaking**

#### **3.1 Anonymity in video-based research**

Videography and research documentaries as methods of inquiry and outreach raise unique and complex ethical questions: “an indexical bond exists between the image and the ethics that produced it” (Nichols, 1991: 77). A major concern is the protection of research participants when anonymity cannot be granted. It is generally assumed that the process of asking for consent, if carefully done, ensures that research subjects have full knowledge of the research project, understand that participation is voluntary, have clear understanding of potential risks and benefits, and are capable to take an informed decision (EC, 2013). In the case of videography, however, ethical soundness is more complex. Practices of de-identification, such as blurring faces or masking eyes, are often insufficient to guarantee anonymity, and significantly reduce the communication and outreach potential of videography (Parry *et al.*, 2016). Researchers are also concerned that adopting ‘traditional’ guidelines on anonymity might render visual data virtually meaningless and ineffective (Wiles *et al.*, 2010). As such, in many videography projects anonymity is not granted, thus increasing risks of causing harm (Parry *et al.*, 2016).

A wide range of principles guide researchers facing the ethical challenge of the inherent absence of anonymity of video-based research (Parry *et al.*, 2016). These include discussing with participant the potential and outreach of audio-visual media, including the details of the dissemination strategy (e.g. public screenings, digital media, DVDs etc.), and how the footage will be used and for how long it will be retained (Parry *et al.*, 2016); securing copyright clearance for recordings that are publicly broadcasted or deposited in open access repositories (BSA, 2006); asking consent for both the filming and the use of the material (Wiles *et al.*, 2008).

Carefully following these guidelines is, however, not always sufficient. In one of the interviews for *Lilongwe water works?* the director of the Kiosks Management Unit of the formal water utility, complained that politicians are not concerned with the wellbeing of low-income communities and only care about money. The point raised by the contributor is obviously salient and controversial. In principle, including this statement in the documentary does not conflict with the ethics guidelines discussed above, as the project had been discussed with the contributor in detail before the filming. Yet, it could have harmed the contributor and exacerbated conflicts between the water utility and politicians. Here there is no straightforward application of ethical rules and the researcher must decide what is fair and responsible and how to balance scientific contribution, societal relevance and ethical



concerns. To do this, visual researchers must carefully reflect on how video-based data will be received in every political, cultural and social context (Pink, 2008). Ultimately this might also entail restricting access to the documentary to protect contributors whilst maintaining the integrity of the project or, as for this case, cutting out the controversial statement.

A second concern with anonymity is filming in public spaces like water kiosks. For instance, some women may have opted to wait for the filming to end to approach the kiosks and buy water. To reduce disruption of their routines, we filmed sequences of maximum 15 minutes and Bentry (WUA member) provided details on the project, including duration of the filming and use of the footage. Where needed filming was interrupted to ensure access to the kiosks. This example illustrates that although videography is in many ways an inclusive research method, it is also intrusive, particularly in the case of an intimate topic like everyday practices of water and sanitation. Social norms situate several water uses and sanitation practices as taboos and many practices encompass delicate emotional dimensions, such as stigma, self-esteem and social acceptance (Rusca *et al.*, 2018).

These considerations were important in determining the theme of the videography project and our approach to it. To illustrate, the decision on what and when to film was taken in agreement with the research participants (see also Wiles *et al.*, 2010; Pink, 2008). We started by presenting our project and outreach strategy, then asked contributors to think about their water and sanitation practices and challenges. In this phase, which resembled a face-to-face interview, we identified key points and themes. We then discussed with contributors what we were interested in filming and they indicated what they were willing to share with us on camera. The social documentarian and photographer Salgado (in Wald, 1991) beautifully describes this relationship: taking a picture is “*to have the strongest relation with a person, to go inside the intensity of a person.*” *Pictures cannot be taken from people, “it is not you with the camera that makes the picture. The picture is a gift.”*

### 3.2 Representation of social reality and the power of storytelling

The notion of “representativeness” is of considerable importance for researchers engaging in videography. In reflecting on promises and potential of videography, I discussed two forms of representation: the first is the act of describing the reality by representing the everyday practices of accessing and distributing water at the kiosk; the second is the political act of speaking for the reality, by representing someone’s interests and opinion. A concern with the first forms of representation is that “images tend to be viewed as representations of social reality but are inevitably constructions of a social reality that are influenced by the attributes of both the researcher and subject” (Wiles *et al.*, 2008: 33). The camera, for instance, might affect peoples’ sayings and doings (Parry *et al.*, 2016). In Lilongwe and Maputo research participants were always aware of the presence of the camera and at times referred to it or to the documentary during the filming. A few contributors asked us to come back the day after to dress ‘adequately’ and prepare. In some cases, we asked contributors to rehearse and repeat parts of their practices of accessing, selling and using water to capture their richness with close-ups for details and wide shots for the context. In this perspective, the scientific representation of everyday practices and their representativeness may have been partially compromised.

The camera, however, was not always an obstacle. In some ways, it seemed to increase

participants' engagement in a way I did not experience in face-to-face interviews. In both videography projects, for instance, participants spontaneously identified prospective research subjects or proposed stories to be included in the project. Their commitment is perhaps also related to representativeness: face-to-face interviews are anonymized and participants are disconnected from their own stories, which are conceptualised into broader and more impersonal categories (e.g. women buying and selling water in low-income neighbourhoods) and disseminated through text. In videography, on the contrary, contributors' identity is revealed and their personal story anchored to their image and identity. Mart, for instance, asked people surrounding her house during the filming to be quiet: *"I need to concentrate and give good answers to Maria. She is going to bring me to Europe"*.

The challenge of constructing realistic images is further complicated by decisions on *how* to mobilise images (i.e. raw footage, edited footage, documentary) and for *whom* (i.e. target audience). For research purposes, raw footage is the most reliable source, comparable to a mix of a semi-structured interviews and observations. When the primary intended audience is the general public or government organisations, and the purpose is influencing behaviour and ideas of decision makers, more emphasis is placed on professionalism and quality of the video (Robert and Lunch, 2015). The purpose here is stimulating curiosity and increase empathy. For this purpose, developing a narrative structure to produce meaning for the audience is key. In a documentary research findings can be translated into engaging and powerful stories "emotionally resonant, connected, grounded, flexible, [and] creative" (De Leeuw *et al.* 2017: 155).

The main concern is then *how* and *what* researchers/filmmakers represent of the historical world they engage with (Nichols, 1991). In other words, what is deemed representative of a given reality. The editing process, for instance, entails deciding which stories to include or to focus on. For Robert Redford (2016) "our best chance to understand the world around us comes in the form of stories and, in particular, stories that represent a unique perspective and are told with an authentic voice". Capturing the unique and extraordinary, however, raises questions on what is being represented. A large part of the videography in Maputo focuses on Aurora, a female water provider that rose from a challenging youth in poverty into owning a water business that transformed her life and that of the whole neighbourhood. Her story is engaging and powerful, but not representative of the over 800 providers in Maputo. The water businesses require a substantial initial investment and most water providers are middle class men. Yet, her unique and exceptional story and her powerful voice are emotionally engaging. Further, capturing the extraordinary is a way of understanding the ordinary. Aurora, for instance, takes pride in doing a job often regarded as belonging to the male sphere because of the physical and technical skills required (Vidal *et al.* 2017). Through her story, the audience is exposed to the extraordinary (e.g. Aurora laying pipes), whilst getting a sense of what cultural norms and ordinary practices are.

#### 4. Conclusions

The promise of videography is grounded on its potential to capture and visualise phenomena in a unique way, whilst ensuring a more inclusive process of knowledge generation. In Lilongwe and Maputo, both the process of collecting data and the sets of data collected provided new insights on how inequalities in water and sanitation services are produced and

experienced in everyday life. Videography also opened up several spaces of participation, some of which were created by the project and others by the spontaneous initiative of contributors that pointed out places and stories that mattered to them.

The project, however, presented methodological and ethical challenges specific to urban water research. The first is related to the intimacy of the topic, both in terms of taboos associated to it and personal spaces in which most water and sanitation practices are performed (e.g. the house, the bathroom). This constituted a limit to what we could film and lead us to exclude very relevant but sensitive topics like hygiene practices. Second, in Lilongwe and Maputo water is highly politicalized and several actors with different power, resources and interests are involved in service provision to low-income areas. This was further complicated by an informal arena of politics in the neighbourhoods in which we filmed. Because of this, the promises of outreach and impact were sometimes reduced by concerns of protecting less powerful contributors. Similarly, as some contributors were better placed than others to influence the data collection process, videography's promise of reducing power differential only partially materialised.

Whilst recognising the ethical challenges posed by these projects, contributors' willingness to participate should not be underestimated. Paradoxically, ethics in qualitative research mostly focuses on anonymity, while contributors were mostly concerned with the impact and outreach of the documentary. The water provider Aurora, for instance, was eager to participate in the documentary and saw it as a vehicle to inspire other people like her. Similarly, other contributors saw it as a way to send a strong message on their condition or political position. The risk that contributors overexpose themselves should, however, not be underestimated. Researchers embarking in videography projects should consider adopting a double consent process, covering both the filming and the use of the images. In this way contributors can verify how their statements have been contextualised in the documentary and have a second opportunity to evaluate the risks of their statements before it is released.

Although in some instances it is difficult to draw the line between research and advocacy in videography project, researchers using this method should have a clear idea of what the main aim of their project is. Research and advocacy call for different formats and one project is unlikely to be able to achieve both. The potential of videography for outreach and impact has been mostly argued on anecdotal evidence. Researchers have an opportunity to contribute to the field by investigating how their final product (e.g. research documentary) travels and is disseminated, and to what extent its message is taken up by education institutes, practitioners and the general audience.

Last, videography and documentary projects require collaborations with filmmakers, journalists, audio specialists, story consultants, composers and other professionals involved in research, storytelling and filmmaking. This offers researchers an opportunity to re-think the research process and develop new forms and spaces of participation. In terms of academic governance, documentaries will only become more prominent in the social sciences if appropriate funding schemes accommodating for these collaborations are established and the documentaries are fully recognised as academic outputs. For an academic to invest time, and intellectual and financial resources on translating video-based research into documentaries aimed at reaching wider audiences, digital publication must be recognised and valued as a peer-reviewed paper.

## Acknowledgments

This research has been undertaken in the framework of the collaboration between *INHAbIT Cities (Investigating Natural, Historical and Institutional Transformations in Cities)* and *UNHIDE Outreach (Uncovering Hidden Dynamics in Slum Environments) – Public engagement through live stories documentaries*. INHAbIT Cities is sponsored by the European Union's Horizon 2020 research and innovation programme under the Marie Skłodowska-Curie grant agreement No 656738 and is implemented by King's College London. UNHIDE Outreach is sponsored by the Dutch Ministry of Development Cooperation (DGIS).

The author wishes to thank the anonymous referees of the journal for excellent and constructive feedback. All errors remain mine. Thanks to Cecilia Alda-Vidal and Nathalie Richards for their comments on the draft.

## References

- Alda-Vidal C., Kooy M. and Rusca M. (2018): Mapping operation and maintenance: an everyday urbanism analysis of inequalities within piped water supply in Lilongwe, Malawi, *Urban Geography*, 39 (1), pp. 104-121. DOI: <https://doi.org/10.1080/02723638.2017.1292664>
- Alda-Vidal C., Rusca M. Zwarteveen M., Schwartz K and Pouw N. (2017): Occupational genders and gendered occupations: the case of water provisioning in Maputo, Mozambique, *Gender, Place & Culture*, 24 (7) pp. 974-990, DOI: 10.1080/0966369X.2017.1339019
- Anand N., *Hydraulic city. Water and the Infrastructures of Citizenship in Mumbai*, Duke University Press Durham and London: 2017.
- Appadurai, A. 2006. "The e Right to Research." *Globalisation, Societies and Education* 4 (2): 167–77.
- Castelán Cargile A., (2016) Can Video Engender Empathic Concern for Others? Testing a Positive Affect Arousing Intervention, *SAGE Open*, Vol 6, Issue 4, 10.1177/2158244016676297
- De Leeuw, S. Parkes M. W., Morgan V. S., Christensen J., Lindsay N., Mitchell-Foster K., and Jozkow J. R. (2017), Going unscripted: A call to critically engage storytelling methods and methodologies in geography and the medical-health sciences, *The Canadian Geographer/Le Geographe canadien*, 61(2): 152–164 DOI: 10.1111/cag.12337
- Domènech, L., March, H., Saurí, D., 2013. Contesting large-scale water supply projects at both ends of the pipe in Kathmandu and Melamchi Valleys, Nepal. *Geoforum* 47 (0), 22–31.
- European Commission, Ethics for researchers. Facilitating Research Excellence in FP7, Luxembourg: Publications Office of the European Union, 2013.
- Ekers M. and Loftus A., (2008) The power of water: developing dialogues between Foucault and Gramsci, *Environment and Planning D: Society and Space* volume 26, pages 698 - 718 doi:10.1068/d5907
- Fantini M., Picturing waters: a review of Photovoice and similar participatory visual research on water governance, *WIREs Water* 2017, 4:e1226. doi: 10.1002/wat2.1226
- Gabriel, N., 2014. Urban political ecology: environmental imaginary, governance, and the non-human. *Geography Compass* 8 (1), 38–48. <http://dx.doi.org/10.1111/gec3.12110>.

- Garrett B. L., Videographic geographies: Using digital video for geographic research, *Progress in Human Geography* 1–21.
- Gordon C., Beyond the observer's paradox: the audio-recorder as a source for the display of identity, *Qual. Res.* 13 (2013) 299–317.
- Graybill J. K. (2015): Teaching energy geographies via videography, *Journal of Geography in Higher Education*, DOI: 10.1080/03098265.2015.1089474
- Gubrium, A., & Harper, K. (2016). *Participatory visual and digital methods*. London and New York: Routledge.
- Hill D., Mumbai High: The Musical –Directors Interview, published 25 January 2016 by Taylor and Francis, retrieved at <https://www.youtube.com/watch?v=4rsvfmWOqMg>
- Kooy, M., & Bakker, K. (2008). Splintered networks: The colonial and contemporary waters of Jakarta. *Geoforum*, 39(6), 1843–1858.
- Latham, A. (2003). Research, performance, and doing human geography: Some reflections on the diary-photograph, diary-interview method. *Environment and Planning A*, 35(11), 1993–2017. <http://doi.org/10.1068/a3587>
- Lawhon, M., Ernstson, H., Silver J., 2014. Provincializing Urban Political Ecology: Towards a Situated UPE Through African Urbanism, *Antipode*, vol. 46 No. 2 pp. 497–516.
- Loftus, A., 2012. *Everyday Environmentalism: Creating an Urban Political Ecology*. U of Minnesota Press, 2012.
- Loftus, A., McDonald, D.A., 2001. Of liquid dreams: a political ecology of water privatization in Buenos Aires'. *Environ. Urbanizat.* 13 (2), 179–199.
- Jaglin, Sylvie. (2008). Differentiating networked services in Cape Town: Echoes of splintering urbanism? *Geoforum*, 39(6), 1897–1906. Elsevier Ltd.
- Jaglin, Sylvie. (2014). Rethinking urban heterogeneity. In Parnell Susan & Oldfield Sophie (edited by), *The Routledge handbook of cities of the global south*. Abingdon: Routledge.
- Jewitt C., An Introduction to Using Video for Research, NCRM Working paper 03/12, March 2012.
- JMP. (2015). Progress on sanitation and drinking water – 2015 update and MDG assessment. World Health Organization.
- Kaul V. and Harrison R. (dir.), *Facing the mountain*, produced by Kaul V: 2016, accessed at: <https://facingthemountain.com/>
- Kindon S. (2003), Participatory video in geographic research: a feminist practice of looking?, *Area* 35(2), pp. 142–153.
- McFarlane C. and Silver J., (2017) Navigating the city: dialectics of everyday urbanism *Transactions of the Institute of British Geographers*, 42 (3) pp. 458–471 doi: 10.1111/tran.12175
- Morales M., L. Harris, and G. Öberg (2014) Citizenshit: the right to flush and the urban sanitation imaginary, *Environment and Planning A*, volume 46, pp. 2816 – 2833.
- Nichols B., “Representing reality”, Indiana University Press, USA: 1991.
- Parry, R. Pino M., Faull C., Feathers L., Acceptability and design of video-based research on healthcare communication: Evidence and recommendations, *Patient Education and Counseling* 99 (2016) 1271–1284
- Pink, S. (2008). *Doing Visual Ethnography Images, Media and Representation in Research*. London: Sage Publications.
- Pink, S. (2010). *Doing Sensory Ethnography. Sociologica. Italian Journal of Sociology Online*. SAGE Publications. <http://doi.org/10.4135/9781446249383>
- Pink, S. (2012). Researching Practices Places and Representations: Methodologies and methods. In *Situating Everydaylife: Practices and Places*. SAGE Publications.

- Prosser, J. (Ed.). (1998). *Image-based research*. London: Falmer Press.
- Redford R./Sundance Institute, 2006 "Our best chance to understand the world around us comes in the form of stories and, in particular, stories that represent a unique perspective and are told with an authentic voice." [Twitter], accessed March 10, 2018 available at: [http://www.insharee.com/m/1394534620964183726\\_9454018](http://www.insharee.com/m/1394534620964183726_9454018)
- Roberts T. and Lunch C., Participatory Video, *e International Encyclopedia of Digital Communication and Society*, First Edition. Edited by Robin Mansell and Peng Hwa Ang. © 2015 John Wiley & Sons, Inc. Published 2015 by John Wiley & Sons, Inc. DOI: 10.1002/9781118290743.wbiedcs148
- Rose, G. "Visual Methodologies: An Introduction to Researching with Visual Materials", SAGE, London: 2016.
- Rusca, M., Alda-Vidal, C. and Kooy, M. (2018) "Sanitation Justice?," in Boelens, R., Perreault, T., and Vos, J. (eds) *Water Justice*. Cambridge: Cambridge University Press, pp. 210–225. doi: 10.1017/9781316831847
- Rusca M., Boakye-Ansah A. S., Loftus A., Ferrero G., van der Zaag P. (2017a), An interdisciplinary political ecology of drinking water quality. Exploring socio-ecological inequalities in Lilongwe's water supply network, *Geoforum* 84 138–146.
- Rusca, M., Alda-Vidal, C., Hordijk, M., & Kral, N. (2017b). Bathing without water: stories of everyday hygiene practices and risk perception in urban low-income areas. The case of Lilongwe, Malawi. *Environment and Urbanization*.
- Rusca M., (dir.) *Lilongwe Water Works?*, produced by Whales That Fly: 2017c accessed at: <https://vimeo.com/240647554>.
- Rusca M., Heun J., Schwartz K., (2012), Water management simulation games and the construction of knowledge, *Hydrol. Earth Syst. Sci.*, 16, 2749–2757, 2012
- Salgado S., (2015), Wachtel on Arts – Sebastião Salgado [podcats] Ideas CBC News, accessed at: <http://www.cbc.ca/radio/ideas/wachtel-on-the-arts-sebasti%C3%A3o-salgado-1.3111154> [Accessed March 10, 2018].
- Satterthwaite, David. (2016). Missing the millennium development goal targets for water and sanitation in urban areas. *Environment and Urbanization*, 28(March), 1–20.
- Shaw, J., & Robertson, C. (1997). *Participatory video: A practical guide to using video creatively in group development work*. London, UK: Routledge.
- Simpson, P. (2011). "So, as you can see ...": Some reflections on the utility of video methodologies in the study of embodied practices. *Area*, 43(3), 343–352. <http://doi.org/10.1111/j.1475-4762.2011.00998.x>
- Smiley S.L., Curtis A. and Kiwango J. P. (2017), Using Spatial Video to Analyze and Map the Water-Fetching Path in Challenging Environments: A Case Study of Dar es Salaam, Tanzania, *Trop. Med. Infect. Dis*, 2, 8; doi:10.3390/tropicalmed2020008.
- Swyngedouw, E. (2004). *Social power and the urbanization of water: flows of power*: Oxford University Press Oxford.
- Swyngedouw, E., 1997. Power, nature, and the city. The conquest of water and the political ecology of urbanization in Guayaquil, Ecuador: 1880–1990. *Environ. Plan. A* 29, 311–332.
- Thomas, R. C. and Milligan, C. D.: Putting teachers in the loop: Tools for creating and customising simulations, *Journal of Inter- active Media in Education*, 15, 1–22, 2004.
- Thomsen, D. C. 2015. Seeing is questioning: prompting sustainability discourses through an evocative visual agenda. *Ecology and Society* 20(4):9. <http://dx.doi.org/10.5751/ES-07925-200409>.
- Tremblay C. and Harris L., Critical video engagements: Empathy, subjectivity and changing narratives of water resources through participatory video, *Geoforum* 90 (2018) 174–

182.

- Truelove Y., (2016), Incongruent waterworlds: Situating the everyday practices and power of water in Delhi, South Asia Multidisciplinary Academic Journal.
- Wald M. L., Sebastiao Salgado: The Eye of The Photojournalist, New York Time Magazine, June 9, 1991, accessed on October 9, 2017 at <http://www.nytimes.com/1991/06/09/magazine/sebastiao-salgado-the-eye-of-the-photojournalist.html?pagewanted=all>
- Wesselink, A., Kooy, M., Warner, J. (2016) Socio-hydrology and hydrosocial analysis: towards dialogues across disciplines. Wiley Interdisciplinary Reviews on Water. doi: 10.1002/wat2.1196
- Wiles R., Prosser J. , Bagnoli A. , Clark A. , Davies K. , Holland S., Renold E., Visual Ethics: Ethical Issues in Visual Research, ESRC National Centre for Research Methods Review Paper, NCRM/011, October 2008.
- Wiles R. Coffey A., Robinson J., Heath S., Anonymisation and visual images: issues of respect, 'voice' and protection, Int. J. Soc. Res. Methodol. 15 (2010) 41– 53.
- Wright, L. K., Bitner, M. J., and Zeithaml, V. A.: Paradigm shifts in business education: Using active learning to deliver services marketing content, Journal of Marketing Education, 16, 5–19, 1994.
- United Nations (2017) Goal 6: Ensure access to water and sanitation for all, accessed at <http://www.un.org/sustainabledevelopment/water-and-sanitation/> on September 17 2017.
- Zug, S. and Graefe, O. 2014. The gift of water: Social redistribution of water among neighbours in Khartoum, *Water Alternatives*, 7(1) pp. 140-159.